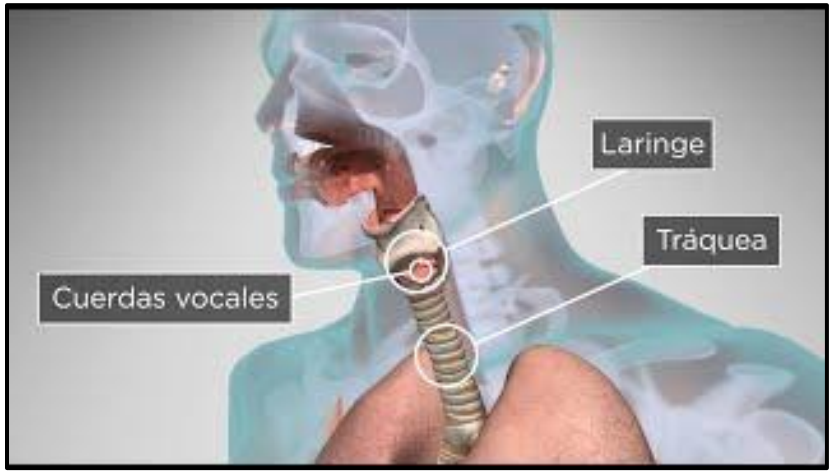
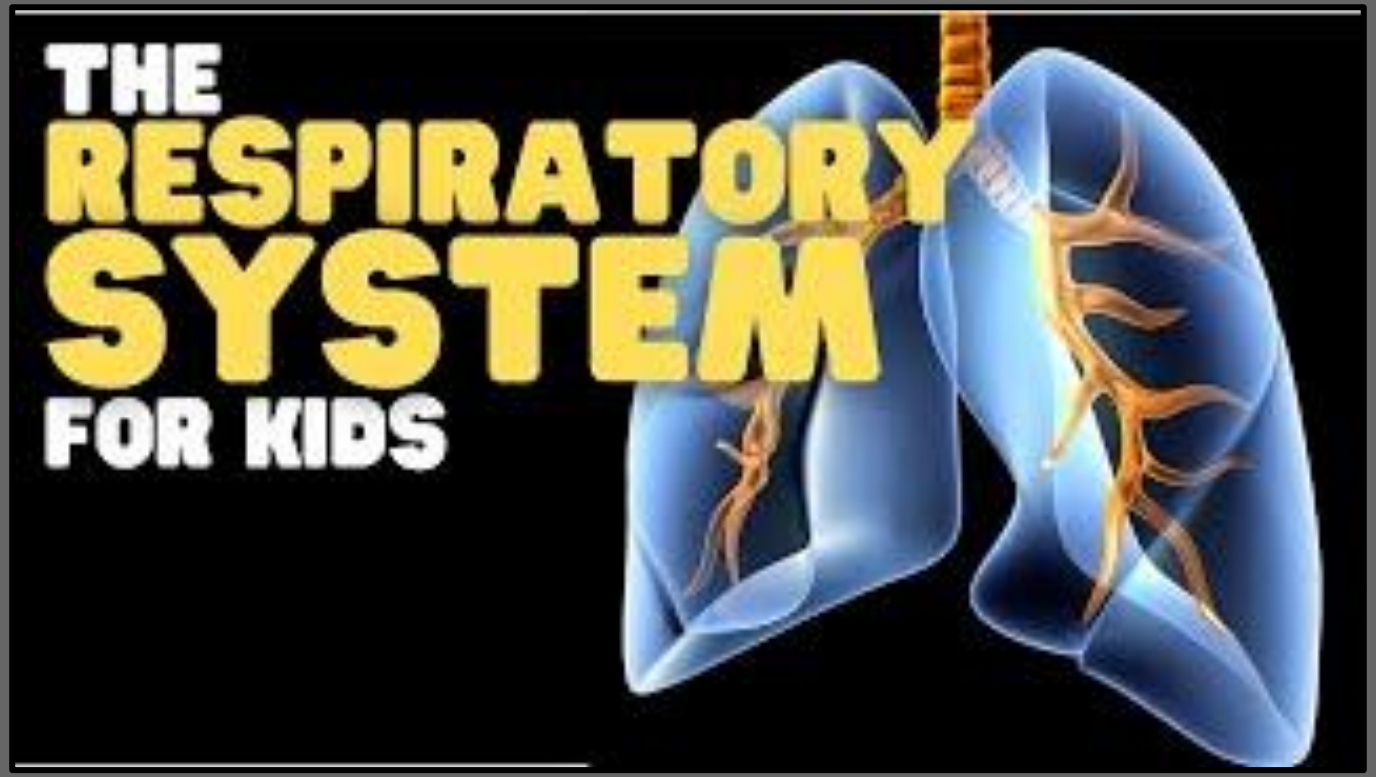
The Vocal Instrument

The Human Voice

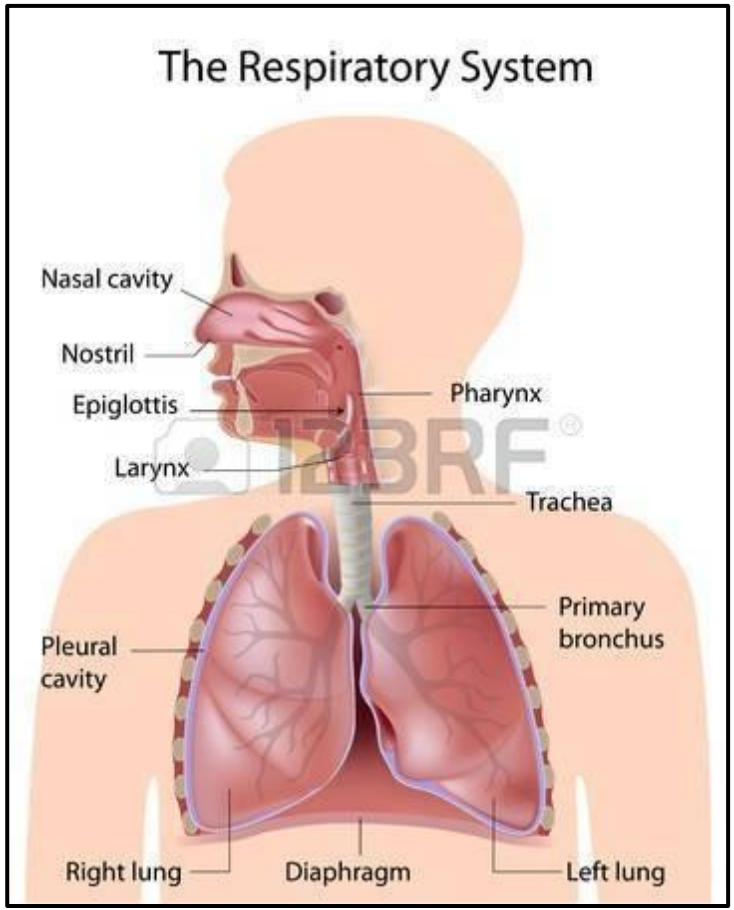


The Voice Box

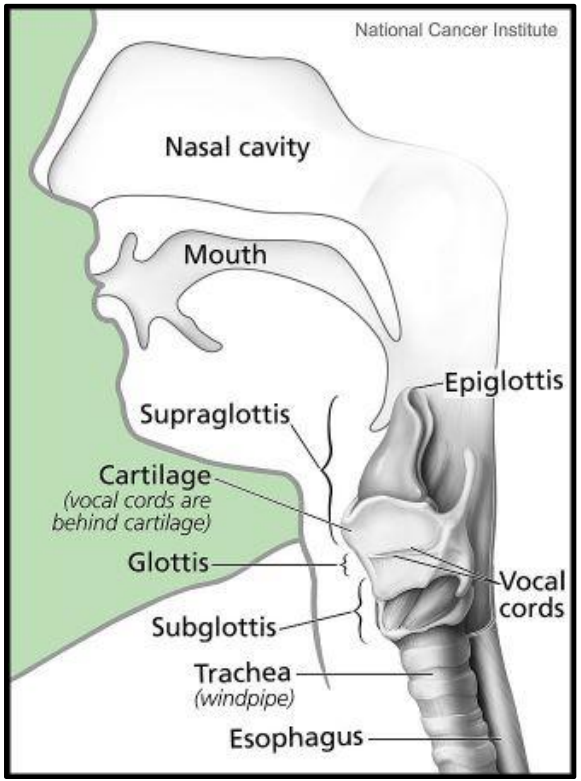
The Respiratory System



The Vocal Instrument



Phonatory Apparatus



Resonator Apparatus

Sound Production

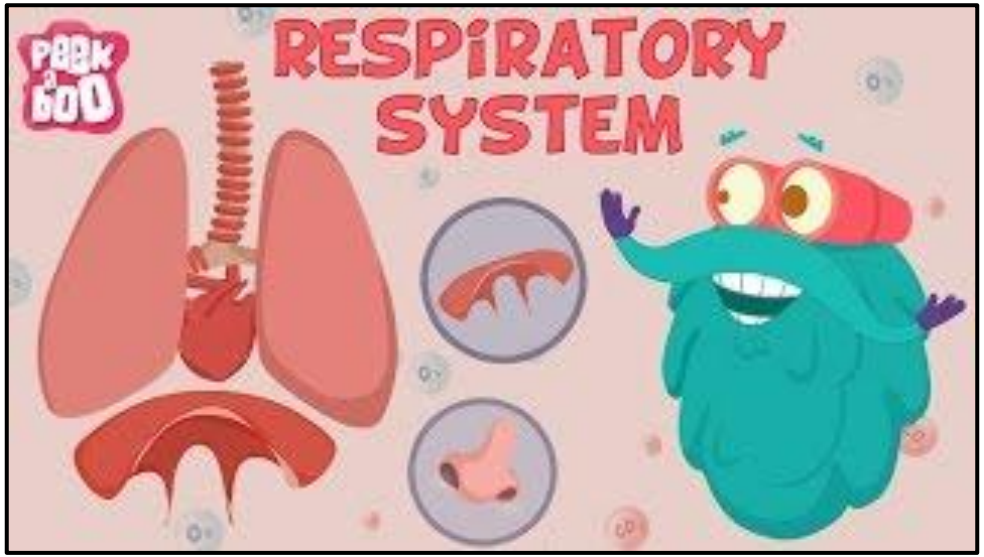
In a guitar, the sound is produced when a force (in this case the guitarist's finger) vibrates the strings. The same thing happens with the voice; the air flowing from the lungs, pulsed by the diaphragm, passes through the larynx, where there are two small tendons called the vocal cords, which tense and vibrate as the air passes through, producing sound.In the same way that the guitar sounds better with new and quality strings, our voice will depend on the state of our vocal cords. Actions such as smoking, too little sleep or excessive screaming can deteriorate its condition, and unlike what we can do with the guitar, we cannot change them.

Sound Amplification

If the guitar does not have a large soundboard, the string sound would be very weak and without timbre quality. The same thing happens with the voice; the faint sound produced in the vocal cords is amplified in the resonators of our body, which are mainly the facial resonators (bony hollows in the face and head) and the chest resonators (hollows in the thoracic cavity)

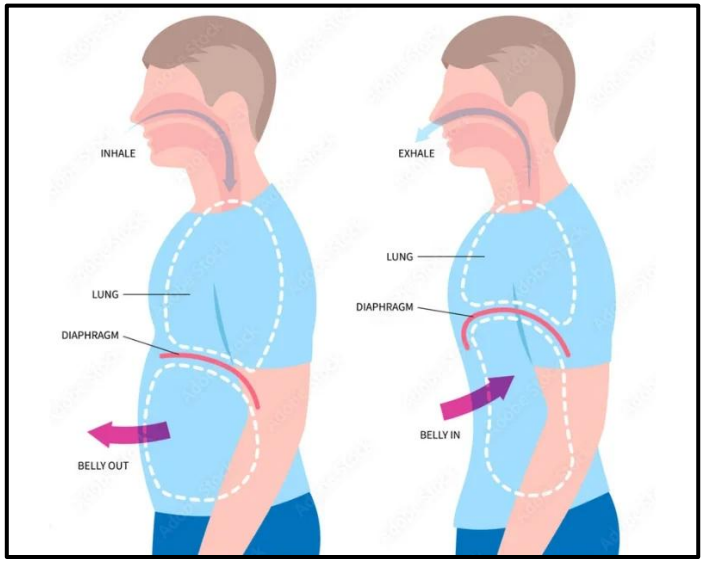
Resonator Apparatus

People who use the voice, whether for singing or public speaking, must master breathing. Good breathing allows the air that enters the body to exit converted into sound without damaging any organ involved in the process.



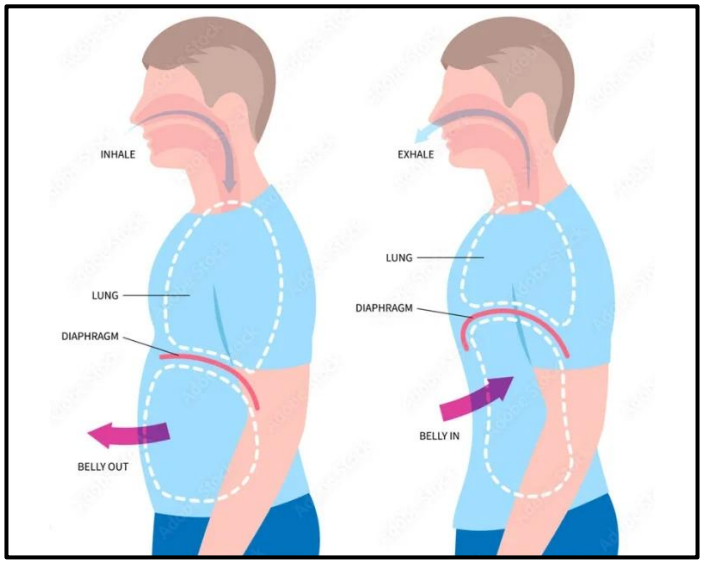
Breathing Exercise

Take in as much air as you can quickly as possible. Have you noticed that your shoulders rise and the upper part of your lungs become especially heavy? Empty your lungs completely. Now take in air slowly with your hand on your stomach and try to make this air fill the lower part of your lungs so that your stomach pushes your hand out.



Complete Breathing

As you may have noticed in the previous activity, when we take in air, we tend to fill only the upper part of the lungs, leaving the rest unused. In singing, we should try to fill the entire lung space, filling first the lower part and then the upper part.
It is what is called full breathing, and its practice is essential to sing well and, moreover, beneficial to health.



Types of Voice - Voice Classification

Male Voice		**Female Voice**
	High	
Tenor		Soprano
Baritone		Mezzo-soprano
Bass	Low	Contralto

Traditionally, voices have been classified according to their range. It is important to classify a voice well, because if a person is made to sing in an unsuitable range, he or she may suffer irreversible damage to his or her vocal cords.